

REMARKS/ARGUMENTS

In the Office Action mailed December 13, 2007, claims 1-18 were rejected. In response, Applicants hereby request reconsideration of the application in view of the below-provided remarks. No claims are amended, added, or canceled.

No Prima Facie Rejection

As a preliminary matter, the rejections of claims 9-12 and 14-17 are improper because the Office Action does not establish a *prima facie* rejection for claims 9-12 and 14-17. In order to establish a *prima facie* rejection of a claim under 35 U.S.C. 103, the Office Action must present a clear articulation of the reason why the claimed invention would have been obvious. MPEP 2142 (citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. __ (2007)).

Here, the Office Action fails to explain why the claimed limitations of claims 9-12 and 14-17 would have been obvious because the Office Action does not acknowledge the actual language of claims 9-12 and 14-17. In particular, the Office Action fails to acknowledge that claim 9 recites “the modulator (3, 5, 10, 11) comprises a multiplying member.” Additionally, the Office Action fails to acknowledge that claim 10 recites “the sampling arrangement (52) operates at a fixed clock.” Additionally, the Office Action fails to acknowledge that claim 11 recites “the fixed clock is between 4×20 kHz and 4×80 kHz, advantageously between 4×32 kHz and 4×64 kHz, particularly at 4×44.1 kHz.” Additionally, the Office Action fails to acknowledge that claim 12 recites “the stereo pilot is filtered with an elliptic filter (16)” (emphasis added). Additionally, the Office Action fails to acknowledge that claim 14 recites “that the phase-locked loop (80) comprises a control path (17) with an amplifier (81, 83).” Additionally, the Office Action fails to acknowledge that claim 15 recites “filtering the modulated signal by means of a filter, in which the other one of the two stereo signals (L+R, L-R) is complex-filtered by means of a slope” (emphasis added). Additionally, the Office Action fails to acknowledge that claim 16 recites “the modulated signal is down-sampled by 2” (emphasis added). Claim 17 recites similar limitations. In fact, the Office Action does not even make an assertion that the cited references might describe the indicated

limitations, or that the indicated limitations might otherwise be obvious in light of the cited references. It appears that this oversight in the Office Action may be a result of combining the rejections of claims 1-18 together in a single paragraph, and only providing reasoning directed to some of the limitations of claims 1-8. Nevertheless, claims 9-12 and 14-17 recite separate limitations that are not addressed in the reasoning used to reject claims 1-8. Therefore, the Office Action fails to establish a *prima facie* rejection for claims 9-12 and 14-17 because the Office Action does not assert or show how the cited reference might teach at least the aforementioned limitations. Accordingly, Applicants respectfully submits that the rejections of claims 9-12 and 14-17 under 35 U.S.C. 103(a) should be withdrawn because the Office Action fails to establish a *prima facie* rejection for each of these claims.

Claim Rejections under 35 U.S.C. 103

Claims 1-18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Horner et al. (U.S. Pat. No. 5,357,544, hereinafter Horner) in view of Wildhagen et al. (U.S. Pat. No. 7,295,631, hereinafter Wildhagen). However, Applicants respectfully submit that these claims are patentable over Horner and Wildhagen for the reasons provided below.

Independent Claims 1 and 15

Claim 1 recites “a phase-locked loop (80) comprising an oscillator (19), characterized in that filter operations can be performed in a complex range” (emphasis added). Claim 15 recites similar limitations.

In contrast, the combination of cited references does not teach a phase-locked loop with an oscillator, as recited in the claim. It should be noted that the Office Action relies on Horner as purportedly teaching a phase-locked loop comprising an oscillator. The Office Action does not rely on Wildhagen as teaching the indicated limitation.

In general, Horner teaches using a digital signal processor. Horner, col. 3, line 66 – col. 5, line 15. A digital signal processor is different from a phase-locked loop with an oscillator because a digital signal processor is a general purpose processor that processes

a variety of different digital signals and is not a circuit dedicated to generating a signal that has a fixed relation to the phase of a reference signal.

Therefore, Horner does not teach implementing a phase-locked loop with an oscillator because Horner merely teaches a signal processor. Moreover, Horner expressly teaches away from the use of a phase-locked loop and an oscillator in his receiver. In particular, Horner teaches that his signal processor 20 eliminates the need for “phase lock loop circuitry including the requisite voltage controlled oscillator.” Horner, col. 4, lines 42-47. Accordingly, Horner does not teach using a phase-locked loop because Horner teaches away from using a phase-locked loop with an oscillator. Since Horner does not teach “a phase-locked loop (80) comprising an oscillator (19), characterized in that filter operations can be performed in a complex range” as recited in claim 1, Applicants respectfully assert claims 1 are patentable over Horner. For similar reasons, Applicants submit claim 15 is also patentable over Horner.

Dependent Claims 2-14 and 16-18

Claims 2-14 and 16-18 depend from and incorporate all of the limitations of the corresponding independent claims 1 and 15. Applicants respectfully assert claims 2-14 and 16-18 are allowable based on allowable base claims. Additionally, each of claims 2-14 and 16-18 may be allowable for further reasons, as described below.

In regard to claim 8, Applicants respectfully submit that claim 8 is patentable over the combination of Horner and Wildhagen because the combination of cited references does not teach all of the limitations of the claim. Claim 8 recites “the oscillator (19) controls a modulator (3, 5, 10, 11)” (emphasis added). In contrast, the cited portion of Horner (Fig. 2, element 26) merely teaches a mixing function 26. In particular, the mixing function 26 operates as an eight-point digital mixer. However, mixing a received radio frequency is different from the control of a modulator by an oscillator because mixing a received radio frequency does not imply the control of a modulator, much less the control of a modulator by an oscillator. In fact, Horner appears to be silent with regard to an oscillator controlling a modulator. Thus, Horner does not teach an oscillator controlling a modulator. Additionally, the Office Action does not assert that Wildhagen might teach the missing limitation of Horner. Accordingly, Applicants respectfully assert

that claim 8 is patentable over Horner and Wildhagen because Horner does not teach “the oscillator (19) controls a modulator (3, 5, 10, 11),” as recited in claim 8.

CONCLUSION

Applicants respectfully request reconsideration of the claims in view of the remarks made herein. A notice of allowance is earnestly solicited.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-3444** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-3444** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,

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